b) instructions for administering the dietary composition to a non-human mammal in an amount sufficient to reduce weight gain normally incurred in the non-human mammal type subsequent to neutering, castration, spaying, ovariectomy or ovariohysterectomy.--

--49. (NEW) A food product according to claim 48, wherein the dietary composition comprises phytoestrogen, phytoandrogen or a mixture thereof, and carnitine.--

--50. (NEW) A food product according to claim 48, wherein the dietary composition comprises comprising phytoestrogen, phytoandrogen or a mixture thereof, and inulin.--

--51. (NEW) A food product according to claim 48, wherein the dietary composition comprises phytoestrogen, phytoandrogen or a mixture thereof, and conjugated linoleic acid.--

--52. (NEW) A food product according to claim 48, wherein the dietary composition comprises phytoestrogen, phytoandrogen or a mixture thereof, and fructose oligosaccharide.--

--53. (NEW) A food product according to claim 48, wherein the phytoestrogen comprises an isoflavone, lignan, coumestan, resorcylic acid lactone, or a mixture thereof.--

- --54. (NEW) A food product according to claim 48, wherein the phytoestrogen or phytoandrogen is derived from soy bean or flax seed, or protein products thereof.--
- --55. (NEW) A food product-according to claim 48, wherein the phytoestrogen comprises daidzin, genistin, daidzein, genistein or coumesterol.--
- --56. (NEW) A food product according to claim 48, wherein the phytoestrogen comprises formometin, genistin, daidzin, ononin, sissotrin, resveratrol or biochanin A.--
- --57. (NEW) A food product according to claim 48, wherein the dietary composition comprises from about 0.001 to about 10 weight percent, based on the weight of the composition, of phytoestrogen, phytoandrogen, or a mixture thereof.--
- --58. (NEW) A food product according to claim 48, wherein the dietary composition comprises from about 0.01 to about 10 weight percent, based on the weight of the composition, of phytoestrogen, phytoandrogen, or a mixture thereof.--
- --59. (NEW) A food product according to claim 48, wherein the instructions provide that the dietary composition is to be administered in an amount sufficient to provide to the non-human mammal phytoestrogen, phytoandrogen or a mixture thereof in an amount of from about 0.001 to 100 mg per gram of the total diet administered to the non-human mammal.--

--60. (NEW) A food product comprising

a) a dietary composition including a food base, phytoestrogen, phytoandrogen or a mixture thereof, and at least one component selected from the group consisting of carnitine, inulin, conjugated linoleic acid, and fructose oligosaccharide; and

b) instructions for administering the dietary composition to a non-human mammal in an amount sufficient to reduce weight gain normally incurred in the non-human mammal type subsequent to neutering, castration, spaying, ovariectomy or ovariohysterectomy.

--61. (NEW) A food product according to claim 60, wherein the food base comprises a milk product.--

- --62. (NEW) A food product according to claim 60, wherein the food base comprises a cereal, a starch, or a mixture thereof.--
- --63. (NEW) A food product according to claim 60, wherein the food base comprises a food of animal origin, a food of plant origin, or a mixture thereof.

--64. (NEW) A food product comprising

- a) a dietary composition including a food base and a component comprising phytoestrogen, phytoandrogen, or estrogen or androgen derived from a fungal or microbial source, or a mixture of thereof, in an amount sufficient to reduce the weight gain normally incurred in a non-human mammal type subsequent to neutering, castration, spaying, ovariectomy or ovariohysterectomy, or post menopause, when the dietary composition is administered to the non-human mammal on a regular basis, and at least one component selected from the group consisting of carnitine, inulin, conjugated linoleic acid and fructose of igosaccharide; and
- b) instructions for administering the dietary composition to a non-human mammal in an amount sufficient to reduce weight gain normally incurred in the non-human mammal type subsequent to neutering, castration, spaying, ovariectomy or ovariohysterectomy.--
- --65. (NEW) A food product according to claim 64, wherein the dietary composition comprises estrogen or androgen derived from a fungal or microbial source, or a mixture thereof, and carnitine.

--66. (NEW) A food product according to claim 64, wherein the dietary composition comprises estrogen or androgen derived from a fungal or microbial source, or a mixture thereof, and inulin.--

-\(\frac{67.}{(NEW)}\) A food product according to claim 64, wherein the dietary composition comprises estrogen or androgen derived from a fungal or microbial source, or a mixture thereof and conjugated linoleic acid.--

--68. (NEW) A food product according to claim 64, wherein the dietary composition comprises estrogen or androgen derived from a fungal or microbial source, or a mixture thereof, and fructose oligosaccharide.--

--69. (NEW) A food product according to claim 64, wherein the food base comprises a food of animal origin, a food of plant origin, or a mixture thereof.--

--70. (NEW) A food product according to claim 64, wherein the food base comprises a milk product.--

cereal, a starch, or a mixture thereof.--

--72. (NEW) A food product according to claim 64, wherein the food base comprises a pet food.

--73. (NEW) A food product according to claim 64, wherein the dietary composition comprises from about 0.001 to about 10 weight percent, based on the weight of the composition, of estrogen or androgen derived from a fungal or microbial source, or a mixture thereof.--

--74. (NEW) A food product according to claim 64, wherein the dietary composition comprises from about 0.01 to about 10 weight percent, based on the weight of the composition, of estrogen or androgen derived from a fungal or microbial source, or a mixture thereof.--